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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/695,907

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Masaru Yarita

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09/20/2006

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EXAMINER

CHOW, JEFFREY J

ART UNIT

PAPER NUMBER

2628

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/695,907

Applicant(s)

YARITA, MASARU

Examiner

Jeffrey J. Chow

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 4-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 4 – 11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected pulse photometer, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 07 July 2006.

This application contains claims 4 – 11 are drawn to an invention nonelected without traverse in Paper No. 20060609. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.

### ***Information Disclosure Statement***

The information disclosure statement filed 23 February 2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because there is no translation for the foreign references JP 3270917 B2 and JP 2003-135434 A. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised

Art Unit: 2628

that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 and 2 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims that consist solely of data manipulation do not fall under statutory matter because no tangible result is produced. An invention must be a “useful process, machine, manufactured, or composition of matter, or any new and useful improvement thereof”. An invention must produce a concrete, useful, and tangible result. Displaying the plot on a screen produces a tangible result.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

Art Unit: 2628

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al. (US 7,025,728).

Regarding independent claim 1, Ito discloses at a time of measurement, a probe is attached to an area subjected to the measurement (column 1, lines 55 and 56) and transmitted light intensity data at respective wavelengths at predetermined time intervals are logarithmic-computed (column 3, lines 14 – 16) and irradiating a living body with a first light beam and a second light beam and converting the first light beam and the second light beam into first electric signal and the second electric signal (claim 3), which reads on the claimed receiving a first signal coming from a medium for a predetermined time period as a first data set and the claimed receiving a second signal coming from the medium for the predetermined time period as a second data set. Ito discloses the two signals being plotted (Figures 2A and 3A), which reads on the claimed plotting the first data set and the second data set on a two-dimensional orthogonal coordinate system. Ito discloses a rotation matrix that separates the noise component and the signal component from the two signals (column 6, lines 32 – 63), which reads on the claimed rotating the first data set and the second data set plotted on the coordinated system by a rotating matrix to separate a signal component and a noise component contained in the observed data.

Regarding dependent claim 2, Ito discloses the fundamental frequency of a pulse wave in relation to the spectrum obtained from the processed signal through frequency analysis (column 8, lines 33 – 40), which read son the claimed step of subjecting the signal component to a frequency analysis to determine a fundamental frequency of the signal component.

Regarding dependent claim 3, Ito discloses a processor 8 (Figure 1), which reads on the claimed signal processor.

Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Stetson (US 2006/0111623).

Regarding independent claim 1, a time processing unit 130 provides timing control signals to light drive circuitry 132 which controls when light source 110 is illuminated, and if multiple light sources are used, the multiplexed timing for the different light sources (paragraph 26), which reads on the claimed receiving a first signal coming from a medium for a predetermined time period as a first data set and the claimed receiving a second signal coming from the medium for the predetermined time period as a second data set. Richter discloses two signals being plotted (Figures 3 – 5), which reads on the claimed plotting the first data set and the second data set on a two-dimensional orthogonal coordinate system. Richter discloses the mixture signals correspond with signals obtained by a pulse oximeter sensor, which include both the desired signal and to separate the signal and the noise by rotating the data (paragraph 34), which reads on the claimed rotating the first data set and the second data set plotted on the coordinated system by a rotating matrix to separate a signal component and a noise component contained in the observed data.

Regarding dependent claim 3, Richter discloses a processor 122 (Figure 1), which reads on the claimed signal processor.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stetson (US 2006/0111623) in view of Richter (US 6,265, 868).

Regarding dependent claim 2, Stetson did not expressly disclose finding the fundamental frequency through frequency analysis. Richter discloses a frequency analysis device for measuring remaining signal strength by generating a Fourier spectrum from the test signal information, the Fourier spectrum including a fundamental frequency, and measuring an amplitude of the fundamental frequency (claim 15). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Stetson's system by determining a fundamental frequency from a frequency analysis. One would be motivated to do so because this would give help determining the strength of the signal.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey J. Chow whose telephone number is (571)-272-8078. The examiner can normally be reached on Monday - Friday 10:00AM - 5:00PM (EST).

Art Unit: 2628

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571)-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJC

  
ULKA CHAUHAN  
SUPERVISORY PATENT EXAMINER